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A LIST
OF THE
Birds and Mammals

COLLECTED BY THE
Steere Expedition to the
PHILIPPINES,

WITH LOCALITIES, AND WITH BRIEF PRELIMINARY DESCRIPTIONS OF
SUPPOSED NEW SPECIES.



ANN ARBOR, MICH.:
THE COURIER OFFICE, PRINTERS.
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INTRODUCTION.

The Steere Expedition to the Philippines went out from the University of Michigan in the year 1887, and spent about twelve months in the Islands. The object of the expedition was to make general zoölogical collections, at the same time visiting as many distinct localities as possible, so that the distribution of species in the islands themselves could be studied. Fifteen of the larger islands, situated in all parts of the group, were visited, and from two to six weeks spent upon each. This amount of time, with a party of five collectors from the United States, and such native help as could be obtained, sufficed to make very large, though by no means exhaustive collections of vertebrates, and important collections in several groups of invertebrates.

As island after island was reached and collected upon by the party, the discovery was made that the group is divided into several quite distinct zoölogical subdivisions, which I have considered to be sub-provinces, and have named as follows: 1st, the sub-province of North Philippines, made up of Luzon, and small adjacent islands; 2d, Mindoro; 3d, Central Philippines, embracing the islands of Panay, Negros, Guimaras, Cebu, and Masbate; 4th, West Philippines, Paragua and Balabac; 5th, South Philippines, Mindanao and Basilan; 6th, East Philippines, Samar, Leyte, and probably Bojol.

There are marks of still further differentiation within these divisions, notably in the instances of Cebu and Basilan.

The discovery by the expedition in the centrally placed island of Mindoro of a new species of water buffalo, the *tamarou*, an animal of such habits and of such large size as to make its introduction by man improbable, goes far toward destroying the hypoth-

esis of Mr. A. R. Wallace, founded on the former meager knowledge of the Philippine fauna, that the islands were oceanic, and never had a connection with the continent.

The relationship of the *tamarou* with the *anoa* of Celebes, and the general similarity of the Philippine and Celebes birds and mammals, especially the latter, would seem to point to a former connection with that island, and the ancient existence of a Celebes-Philippine continent lying outside of Java and Borneo.

Over fifty supposed new species of birds and mammals were discovered by the expedition, and are here briefly described. This work is necessarily more or less imperfect and faulty from the lack of the complete literature of the subject, as well as from the lack of large collections of Philippine birds in this country with which to compare those in our hands. It is hoped, however, that the results of our labor will be found to make a real and valuable addition to the knowledge of this interesting group of islands.

LIST OF BIRDS COLLECTED BY THE STEERE
EXPEDITION TO THE PHILIPPINES, WITH LO-
CALITIES AND WITH BRIEF PRELIMINARY
DESCRIPTIONS OF SUPPOSED NEW SPECIES.

For convenience of reference the same arrangement of orders and families has been used as in Sharpe's and Lord Walden's published lists of Philippine birds. The names of genera have been made to agree with those given in the British Museum Catalogue of Birds, as far as that has been issued. As the supposed new species are in almost all cases representative forms, each strictly limited to one or several adjacent islands, they have been named, as far as possible, to show their distribution. The names of distinct islands only are given in the localities collected from. In the few cases where collections were made from more than one place in a single island, these were generally so near together and so similar in conditions that they showed little difference in fauna. The islands are given in the order in which they were visited and collected in, and the date at which a species was collected, in any island, can be readily made out from the following schedule:

Paragua, August and September, 1887. Mindanao, October. Basilan, November. Mindanao, again in December. Guimaras, December. Panay, January, 1888. Negros and Siquijor, February. Cebu and Bojol, March. Samar and Leyte, April. Masbate and Marinduque, May. Mindoro, June. Luzon, July.

PSITTACI.

PLYCTOLOPHIDÆ.

1. CACATUA HEMATUROPYGIA. Paragua, Basilan, Mindanao, Guimaras, Cebu, Leyte, Samar, Masbate, Marinduque, Mindoro.

PSITTACIDÆ.

2. *PRIONITURUS DISCURUS*. Mindanao, Basilan, Guimaras, Leyte, Samar, Masbate.

3. *PRIONITURUS CYANEICEPS*. Paragua.

4. *PRIONITURUS LUCONENSIS*. *sp. nov.* Marinduque, Luzon. Adult male and female. General color above and below, including the head, bright yellow green.

5. *PRIONITURUS MINDORENSIS*. *sp. nov.* Mindoro. Adult male. General color, grass green as in *P. discurus*; crown and nape, violet; lores, face and chin, yellow green.

6. *TANYGNATHUS LUCONENSIS*. Paragua, Basilan, Guimaras, Panay, Negros, Masbate, Marinduque, Mindoro.

7. *TANYGNATHUS EVERETTI*. Mindanao.

8. *CYCLOPSITTA LUNULATA*. Luzon.

9. *CYCLOPSITTA MINDANENSIS*. *sp. nov.* Mindanao. Adult male. Collar violet, cheeks green. *C. lunulata* has a cobalt collar and blue cheeks in the adult male.

10. *LORICULUS PHILIPPENSIS*. Marinduque.

11. *LORICULUS REGULUS*. Panay, Guimaras, Negros, Masbate. *L. Panayensis* of Tweeddale is the young male of *L. regulus*.

12. *LORICULUS HARTLAUBII*. Mindanao, Basilan.

13. *LORICULUS CHRISONOTUS*. Cebu.

14. *LORICULUS SIQUIJORENSIS*. *sp. nov.* Siquijor. Adult male with large quadrangular spot of crimson upon the forehead and crown, ending sharply in the general green color of the upper surface. Adult female and young male: Red spot upon the forehead veiled by blue tips to the red feathers.

15. *LORICULUS MINDORENSIS*. *sp. nov.* Mindoro. Adult with a broad crimson band across the forehead below the eyes, ending sharply in the green of the upper surface.

16. *LORICULUS WORCESTERI*. *sp. nov.* Samar, Leyte. The crimson of the upper surface covering the forehead, crown and nape, where it tapers to a point. It is distinguished from *L. Hartlaubii*, its nearest ally, by the much fainter wash of orange red upon the mantle and interscapulars, and by the shape of the red markings of the head and nape. In *L. Hartlaubii* the crimson area grows wider on the nape, where it ends broadly.

All adult male Philippine Loriculi observed, have an orange-red spot upon the breast, and green cheeks. All adult females and all young males in their second plumage have blue on the cheeks and throat, and lack the orange-red plastron. All young birds in first plumage have the entire head green, and the rump scarlet.

The seven species collected can be readily distinguished in all but the first plumage by the shape and location of the crimson and yellow markings upon the head and nape.

RAPTORES.

FALCONIDÆ.

17. *CIRCUS PHILIPPINENSIS*. *sp. nov.* Mindanao, Guimaras, Luzon. Adult female. Ashy brown. Head and neck streaked with white, hinder crown streaked with cinnamon. Scapulars and feathers of interscapular region narrowly tipped with white and showing more or less of large, ashy white spots on both webs. Outer surface of folded wing ashy white banded with black. Tail ashy white banded with ashy brown and tipped with white. Upper tail coverts white. Under surface white, narrowly streaked with ashy brown on throat and breast. Belly, thighs and under tail coverts pure white. Under surface of tail white shaded with ashy and faintly banded.

18. *ASTUR SOLOENSIS*. Mindanao.

19. *ASTUR TRIVIRGATUS*. Mindanao.

20. *LOPHOTRIORCHIS KIENERI*. Mindanao, Panay, Marinduque.

21. *SPIZÆTUS PHILIPPINENSIS*. Basilan, Negros, Masbate.

22. *SPILORNIS HOLOSPILUS*. Mindanao, Basilan, Samar, Marinduque, Mindoro, Luzon.

23. *SPILORNIS PANAYENSIS*. *sp. nov.* Guimaras, Panay, Negros. Adult male. Head black, feathers of crest sulphur white at base, then black, narrowly edged with whitish. Rest of upper surface with wings light ashy brown all the feathers edged with whitish. Tail broadly tipped with white and with two broad whitish bars and part of a third basal one. Throat bluish ash, unmarked. Rest of under surface pale cinnamon shaded with ash and spotted and banded as in *S. holospilus*. Length, 19.75; wing, 12.50; tail, 9.0; tarsus, 2.80. Distinguished from *S. holospilus* by its small size and pale coloring.

24. *SPILORIS PALLIDUS*. Paragua.

25. *BUTASTUR INDICUS*. Mindanao, Basilan, Guimaras, Panay, Negros, Siquijor, Cebu, Luzon.

26. *HALIÆTUS LEUCOGASTER*. Mindanao, Samar.

27. *HALIASTUR INTERMEDIUS*. Sulu, Guimaras, Panay, Bojol, Siquijor, Samar, Marinduque.

28. *ELANUS HYPOLEUCUS*. Guimaras, Negros, Mindoro, Luzon.

29. *MICROHIERAX ERYTHROGENYS*. Luzon, Mindanao.

30. *FALCO COMMUNIS*. Mindanao, Negros, Luzon.

- 31. *FALCO SEVERUS*. Paragua.
- 32. *PANDION LEUCOCEPHALUS*. Marinduque.
- 33. *POLYOETUS ICHTHYAETUS*. Mindanao.

STRIGIDÆ.

- 34. *BUBO PHILIPPINENSIS*. Luzon.
- 35. *SCOPS EVERETTI*. Samar.
- 36. *NINOX LUGUBRIS*. Mindanao, Basilan, Guimaras, Luzon.
- 37. *NINOX SPILOCEPHALA*. Mindanao, Basilan.
- 38. *NINOX PHILIPPENSIS*. Guimaras, Negros, Siquijor, Marinduque, Luzon.
- 39. *STRIX CANDIDA*. Siquijor, Luzon.

PICARIÆ.

PICIDÆ.

- 40. *THRIPONAX JAVENSIS*. Mindanao, Basilan.
- 41. *THRIPONAX PECTORALIS*. Samar, Leyte.
- 42. *THRIPONAX PHILIPPINENSIS*. *sp. nov.* Guimaras, Masbate.
Adult male. Rump buffy white. Crest scarlet with the bases of the feathers of the crown and nape white, cheek and sides of face largely scarlet, nearly joining the scarlet feathers of the crest behind the eye. The feathers of the chin, throat and neck narrowly tipped with scarlet; lower mandible horn white, upper blackish.
- 43. *THRIPONAX MINDORENSIS*. *sp. nov.* Mindoro. Adult male. Much smaller than the last. Rump white. Much white upon ear coverts and throat. Scarlet cheek patch limited to a narrow bar upon the lower jaw. Bases of the feathers of the forehead as well as of the crest white. White spot at bases of first and second primaries.
- 44. *MÜLLERIPICUS FUNEBRIS*. Marinduque, Luzon.
- 45. *MÜLLERIPICUS FULIGINOSUS*. Mindanao, Samar.
- 46. *MÜLLERIPICUS PULVERULENTUS*. Paragua.
- 47. *CHRYSOCOLAPTES HÆMATRIBON*. Marinduque, Luzon.
- 48. *CHRYSOCOLAPTES ERYTHROCEPHALUS*. Paragua.
- 49. *CHRYSOCOLAPTES XANTHOCEPHALUS*. Guimaras, Panay, Negros, Masbate.
- 50. *CHRYSOCOLAPTES LUCIDUS*. Mindanao, Basilan.
- 51. *CHRYSOCOLAPTES SAMARENSIS*. *sp. nov.* Samar, Leyte.
Adult male. General color of upper parts crimson as in *C. hæmatribon*. Under surface spotted as in *C. lucidus*. Buffy feathers of face and throat washed with crimson, much deeper on the cheeks.
C. Samarensis is curiously intermediate between *C. hæmatribon*

and lucidus, having the back of one and' the ventral surface of the other, but the crimson marking of the face and throat separates it from either.

52. *TIGA EVERETTII*. Palawan.

53. *YUNGIPICUS MACULATUS*. Panay.

54. *YUNGIPICUS VALIDIROSTRIS*. Marinduque, Luzon. It seems most probable that it was the Luzon bird described by Blyth under this name.

55. *YUNGIPICUS BASILANICUS*. *sp. nov.* Basilan. Head black slightly tinged in front with cinnamon brown. Crimson crest In male nearly confluent. Breast washed with orange red, fading to sulphur yellow behind. Interscapulars black and barred with sulphur yellow. Back sulphur yellow.

56. *YUNIGIPICUS LEYTENSIS*. *sp. nov.* Head black. Fore-head and basal region cinnamon. Breast tinged with crimson.

TROGONIDÆ.

57. *HARPACTES ARDENS*. Mindanao, Basilan, Samar, Marinduque, Luzon.

MEROPIDÆ.

58. *MEROPS PHILIPPINUS*. Mindanao, Basilan, Guimaras, Panay, Negros, Cebu, Siquijor, Panay, Luzon.

59. *MEROPS BICOLOR*. Mindanao, Guimaras, Negros, Marinduque, Mindoro, Luzon. Nesting in Marinduque in May in open, nearly level ground.

Merops philippinus feeds solitarily upon wasps, dragon flies, etc., *M. bicolor* in flocks and apparently in nearly all cases upon honey bees.

CORACIDÆ.

60. *EURYSTOMUS ORIENTALIS*. Mindanao, Basilan, Guimaras, Panay, Negros, Siquijor, Samar, Leyte, Marinduque, Mindoro, Luzon.

ALCEDINIDÆ.

61. *ALCEDO BENGALENSIS*. Paragua, Balabac, Mindanao, Basilan, Guimaras, Negros, Siquijor, Samar, Masbate, Luzon.

62. *PELARGOPSIS GIGANTEA*. Mindanao, Basilan, Samar, Guimaras, Masbate.

63. *PELARGOPSIS LEUCOCEPHALA*. Paragua, Mindoro.

64. *CEYX MELANURA*. Luzon.

The *Melanura* type of *Ceyx* takes on a number of representative

forms in the Philippines and *C. melanura* itself seems to be limited to Luzon.

65. *CEYX SAMARENSIS*. *sp. nov.* Samar and Leyte. Upper surface deep rufous. Interscapulars forming two broad black bands. Wings black, coverts black and spotted with cobalt. Sides of the head rich lilac. Breast and upper abdomen lilac, fainter behind. Size, length, 5.80; tail, 1.20; beak, 1.20; wing, 2.60; middle toe and claw, 0.60. Differs from true *C. melanura* of Luzon in its larger size, in coloring of cheeks and breast, and in amount of coloring on lower surface.

66. *CEYX MINDANENSIS*. *sp. nov.* Above rufous. Head, cheeks and back thickly spotted with bright lilac. Wings black, secondaries edged with rufous. Coverts black, broadly tipped with rufous, these rufous tips carrying faint lilac spots. Breast rufous washed with bright lilac.

67. *CEYX BASILANICA*. *sp. nov.* Basilan. Color much as in *C. Mindanensis*. Rufous edging of secondaries much broader and upper secondaries, broadly tipped with rufous. White spot on side of neck not preceded by the blue and black markings found in the preceding species.

C. Basilanica differs from *C. Mindanensis* in having lost about all the black in the scapulars, and in the coloring of the wing and neck.

68. *CEYX RUFIDORSA*. Paragua.

69. *CEYX CYANOPECTUS*. Mindoro, Marinduque. *C. cyanopectus* from Mindoro is smaller, and the upper mandible black, while in the specimens from Marinduque, the upper mandible is reddish brown.

70. *CEYX ARGENTATA*. Mindanao.

71. *CEYX FLUMENICOLA*. *sp. nov.* Samar, Leyte. Wing, 2.27; tail, 1.25; culmen, 1.40. General coloring above as in *C. argentata*. Chin and throat buffy white. White spot on the belly. Breast flanks and remaining under surface deep ultramarine with black bases to the feathers. Differs from *C. argentata* in smaller size, in the buffy white chin and throat, and in the general color of the under surface.

72. *CEYX BOURNSII*. *sp. nov.* Basilan. Head, nape and interscapulars thickly spotted with bright cobalt, the blackish bases of the feathers appearing between. Back silvery blue, scapulars black tipped with faint cobalt. Upper tail coverts and tail cobalt. Wing coverts spotted with cobalt, primaries black, 1st rufous on outer web. Throat, and spot on side of neck white, the latter tinged

with rufous. Cheeks and rest of under surface orange rufous, deeper on the breast. Length, 4.5; culmen, 1.00; wing, 2.5. This species appears to be most nearly allied to *C. cajeli* from Bourou.

73. *CEYX MALAMAUI*. *sp. nov.* Basilan. Head, nape, interscapular region and wing coverts black, spotted with ultramarine. Scapulars black washed with ultramarine. Back silvery blue. Tail black, tinged with ultramarine. Wings black. Spot on side of neck, white. Throat white, tinged with orange. Large loreal spot, cheeks and rest of under surface orange rufous. Length, 5.00; culmen, 1.15; wing, 2.60. This kingfisher appears most nearly allied to *C. lepidus*.

74. *ACTENOIDES HOMBRONI*. Mindanao. A series of this species shows the sexes to be entirely distinct in coloring. The female has an olive green head and is without the indigo cheek spot of the male.

75. *ACTENOIDES LINDSAYI*. Luzon. A series of this species also shows distinct sex markings. The verditer upon the head and cheeks of the male are absent in the female, those parts being all green. The cinnamon collar and throat of the male are replaced in the female by buffy white feathers narrowly edged with black on the throat, and cinnamon broadly edged with black upon the collar.

75. *ACTENOIDES MOSELEYI*. *sp. nov.* Negros. A single specimen of *Actenoides*, a female, procured in Negros is near *A. Lindsayi*. It has the green head with the blue stripe on side and back of head of the male of that species, with the buffy ear coverts and green moustachial stripe of the female. It differs from either sex of that species in having a black nape and mantle and black edgings to the feathers of the breast and flanks.

77. *HALCYON WINCHELLI*. Basilan, Samar. The male of this species differs from the type described, a female, in being white below instead of ochraceous.

78. *HALCYON PILEATA*. Balabac, Basilan.

79. *HALCYON GULARIS*. Mindanao, Guimaras, Panay, Negros, Cebu, Samar, Masbate, Marinduque, Mindoro, Luzon.

80. *HALCYON COROMANDA*. Guimaras, Luzon.

81. *HALCYON CHLORIS*. Paragua, Mindanao, Basilan, Guimaras, Leyte, Panay, Samar, Marinduque, Mindoro, Luzon.

MEGALÆMIDÆ.

82. *XANTHOLEMA HEMACEPHALA*. Mindanao, Leyte, Mindoro, Luzon.

83. *XANTHOLEMA ROSEA*. Guimaras, Negros.

CYPSELIDÆ.

84. *MACROPTERYX COMATUS*. Mindanao, Basilan, Guimaras. Panay, Marinduque, Mindoro, Luzon.
 85. *CHÆTURA GIGANTEA*. Paragua.
 86. *COLLOCALIA TROGLODYTES*. Guimaras, Negros, Marinduque.
 87. *COLLOCALIA FRANCICA*. Panay, Negros, Cebu, Mindoro.

CAPRIMULGIDÆ.

88. *CAPRIMULGUS MACRURUS*. Paragua.
 89. *CAPRIMULGUS MANILLENSIS*. Luzon.
 90. *BATRACHOSTOMUS CORNUTUS*. Paragua.

CUCULIDÆ.

91. *CACOMANTIS MERULINUS*. Paragua, Mindanao, Basilan, Panay, Negros, Cebu, Samar, Leyte, Masbate, Luzon.
 92. *CHALCOCOCCYX AMETHYSTINUS*. Mindoro.
 93. *CHRYSOCCOCCYX BASALIS*. Basilan.
 94. *SURNICULUS VELUTINUS*. Basilan.
 95. *SURNICULUS LUGUBRIS*. Paragua.
 96. *HIEROCCOCCYX PECTORALIS*. Mindanao.
 97. *EUDYNAMIS MINDANENSIS*. Mindanao, Basilan, Samar, Marinduque, Mindoro.
 98. *EUDYNAMIS MALAYANA*. Paragua.
 99. *DASYLOPHUS SUPERCILIOSUS*. Marinduque, Luzon.
 100. *LEPIDOGRAMMUS CUMINGI*.
 101. *CENTROCCOCCYX VIRIDIS*. Mindanao, Basilan, Guimaras, Panay, Negros, Cebu, Samar, Leyte, Masbate, Marinduque, Luzon.
 102. *CENTROCCOCCYX MINDORENSIS*. *sp. nov.* All black with bronze green reflections. Head duller black. Wing slightly shaded with rufous; most apparent on edges of primaries. Eyes red. Legs and beak black. Length, 17.00; tail, 11.00; wing, 7.00; Sexes alike in color.
 103. *CENTROCCOCCYX AFFINIS*. Paragua.
 104. *PYRRHOCENTOR MELANOPS*. Mindanao, Basilan, Samar, Leyte.
 105. *DRYOCOCCYX HARRINGTONI*. Paragua.

BUCEROTIDÆ.

106. *BUCEROS HYDROCORAX*. Marinduque. Luzon.
 107. *BUCEROS MINDANENSIS*. Basilan, Mindanao.
 108. *BUCEROS SEMIGALEATUS*. Samar, Leyte.
 109. *ANTHRACOCEROS LEMPRIERI*. Paragua.

110. CRANIORRHINUS LEUCOCEPHALUS. Mindanao.
 111. CRANIORRHINUS WALDENI. Guimaras, Panay.
 112. PENELOPIDES PANINI. Guimaras, Panay, Negros, Masbate.

113. PENELOPIDES MANILLÆ. Luzon, Marinduque.

114. PENELOPIDES AFFINIS. Mindanao.

115. PENELOPIDES BASILANICA. *sp. nov.* Basilan. Much like *P. affinis* of Mindanao, but differs from it in having the rufous upon the tail reaching to and beneath the upper tail coverts, so that the whole base of the tail appears rufous, though some specimens show some black at the bases of the feathers when they are uncovered. The sides of the mandibles are also flesh colored to their bases instead of being black behind as in *P. affinis*.

116. PENELOPIDES SAMARENSIS. *sp. nov.* Samar, Leyte. Most like *P. Panini*, but differs from it in having, in the male, the belly, under tail coverts, thighs, breast and upper tail coverts buffy white, uniform with the head and breast, instead of dark rufous as in *P. Panini*. The chiseling upon the beak is also very different. In *P. Panini* both mandibles are extensively grooved, the furrows in the upper mandible being buffy white, and the ridges between black; the ridges below are also black with indications of lighter furrows. In *P. Samarensis* the chiseling is nearly limited to the lower mandible, and upon this the ridges are white and the furrows dark.

117. PENELOPIDES MINDORENSIS. *sp. nov.* Similar to *P. Manillæ*, but black with bronze green gloss instead of brown as in *P. Manillæ*. The whole base of the tail is light ferruginous instead of this color being limited to a narrow bar as in *P. Manillæ*, and the lower mandible is plain instead of being chiseled as in that species. The female of *P. Mindorensis* has the feathers of the head white as in the male, thus differing from the other Philippine species, in all of which the females are black headed.

The males and females of *P. Mindorensis* differ chiefly in the color of the bare skin about the eye and the base of the beak, this in life being dark blue in the female and flesh colored in the male.

PASSERES.

LANIIDÆ.

118. LANIUS NASUTUS. Guimaras, Negros, Panay, Siquijor, Bojol.

119. *LANIUS LUCIONENSIS*. Mindanao, Basilan, Guimaras, Panay, Negros, Cebu, Samar, Leyte, Masbate.

ARTAMIDÆ.

120. *ARTAMUS LEUCORHYNUS*. Mindanao, Basilan, Guimaras, Panay, Negros, Cebu, Siquijor, Marinduque, Mindoro, Luzon.

CAMPEPHAGIDÆ.

121. *ARTAMIDES (GRAUCALUS) SUMATRANUS*. Paragua.

122. *ARTAMIDES STRIATUS*. Luzon.

123. *ARTAMIDES MINDORENSIS*. *sp. nov.* Mindoro. Most similar to *A. striatus* but differs in having the black of the lores extending about the eye, and in the rump and upper tail coverts being uniform with the back and not fringed with gray.

124. *ARTAMIDES MINDANENSIS*. *sp. nov.* Mindanao, Samar. Young. Whole of under plumage and the rump and upper tail coverts barred with black and white. Rest of upper surface lead gray. Adult male.—Chin, throat and upper breast uniform plumbeous gray like the back. Rest of under surface and the rump and upper tail coverts barred with black and white. The black bars become narrower behind below, until the under tail coverts are nearly or quite pure white.

125. *ARTAMIDES PANAYENSIS*. *sp. nov.* Guimaras, Panay, Masbate. Young barred below like *A. Mindanensis*, but with the black bars much broader, giving the under surface a darker look. Feathers of rump and upper tail coverts plumbeous at base, then broadly black, then white-edged. Adult male.—Throat and breast uniform plumbeous gray. Rest of under surface and rump and upper tail coverts barred as in the young. Bars of black on under tail coverts as broad as the white. *A. Panayensis* is a shade darker plumbeous gray than *Mindanensis*. Black and plumbeous predominate on the rump and upper tail coverts. Black predominates in the barring beneath. In *Mindanensis* white is more prominent in the barring below and above.

126. *EDOLISOMA (VOLVOCIVORA) MINDANENSIS*. Basilan.

127. *EDOLISOMA CAERULESCENS*. Luzon.

128. *EDOLISOMA (GRAUCALUS) PANAYENSIS*. *sp. nov.* Guimaras, Panay. Adult male. Above, lead black, lighter and washed with ashy on rump and upper tail coverts. Throat, breast, wings and tail clear black. Flanks and thighs plumbeous black. Under wing and tail coverts white. Wing coverts and outer edges of secondaries forming a white wing bar as in *Lalage*. Feathers of tail tipped with white. Female.—Plumbeous gray above and

below. Wings and tail as in male. Legs and beak black. l. 10.40; tail 5.00; wing 5.25; culmen 1.00; tarsus 0.85.

129. *LALAGE DOMINICA*. Basilan, Mindanao, Guimaras, Panay, Negros, Cebu, Marinduque, Mindoro, Luzon.

130. *PSEUDOLALAGE MELANOLEUCA*. Mindoro, Luzon.

131. *PSEUDOLALAGE MINOR*. *sp. nov.* Mindanao. This bird of the melanoleuca type differs in being much smaller, averaging about 7.50, while melanoleuca averages 8.25. The male agrees almost exactly with melanoleuca in coloring. The white tips of two outer tail feathers are much narrower. The females of the two species differ most. They are alike on upper surface, but *Pseudolalage minor* has the chin, throat and breast plumbeous gray with dark shaft stripes and faint whitish above. The plumbeous of the breast fades into white on the belly and under tail coverts.

PACHYCEPHALIDÆ.

132. *HYLOTERPE PHILIPPINENSIS*. Basilan, Siquijor, Samar.

PERICROCOTIDÆ.

133. *PERICROCOTUS IGNEUS*. Paragua.

134. *PERICROCOTUS LEYTENSIS*. *sp. nov.* Leyte. An adult male has the general coloring of *P. igneus*, but is larger and the central tail feathers are tipped with vermillion. The four outer primaries are black and at least seven of the secondaries have vermillion markings on the outer webs toward their tips, as well as the broad vermillion bars across their bases. l. 7.00, wing 3.00, tail 3.50.

DICRURIDÆ.

135. *DICRURUS BALICASSIUS*. Marinduque, Mindoro, Luzon.

136. *DICRURUS MIRABILIS*. Guimaras, Panay, Negros, Masbate.

137. *DICRURUS STRIATUS*. Mindanao, Basilan, Samar, Leyte.

138. *DICRURUS (CHIBIA) PALAWANENSIS*. Paragua.

139. *BUCHANGA CINERACEA*. Paragua.

MUSCICAPIDÆ.

140. *PHILENTOMA ALBIVENTRIS*. Guimaras, Panay, Negros, Masbate.

141. *RHIPIDURA NIGRITORQUIS*. Paragua, Mindanao, Basilan, Guimaras, Panay, Cebu, Marinduque, Luzon.

142. *SIPHIA LEMPRIERI*. Paragua.

143. *SIPHIA PHILIPPINENSIS*. Basilan, Cebu, Samar, Marinduque, Mindoro, Luzon.

144. *HYPOTHYMIS OCCIPITALIS*. Paragua, Mindoro, Marinduque.

145. *HYPOTHYMIS AZUREA*. Basilan, Mindanao, Guimaras, Negros, Panay, Bojol, Samar, Leyte, Luzon.

It is doubtful if the two forms are distinct, but the separation made above seems to most nearly agree with the descriptions.

146. *HYPOTHYMIS SUPERCILIARIS*. Mindanao, Basilan.

147. *HYPOTHYMIS SAMARENSIS*. *sp. nov.* Samar, Leyte. I find this form of *Hypothymis* from the eastern islands constantly differing from *H. superciliaris* in having the head black, slightly washed with blue. The silvery cobalt plumes on forehead and over eye also form a much narrower line.

148. *CYANOMYAS CÆLESTIS*. Basilan, Samar.

149. *CYANOMYAS HELENÆ*. *sp. nov.* Samar. Adult male. Entire upper surface rich azure blue. Lighter on upper tail coverts. Forehead and line over eye silvery cobalt. Wings much darker blue. Lores and space extending back to the eye black. Chin black. Throat and breast dark azure blue. Abdomen white. Feathers of crest and sides of head much lengthened as in *C. cælestis*. Size smaller.

150. *EUMYAS PANAYENSIS*. Negros.

151. *ZEOCEPHUS RUFUS*. Panay, Negros, Marinduque, Luzon, Mindoro.

152. *ZEOCEPHUS CINNAMOMEUS*. Basilan.

153. *ZEOCEPHUS CYANESCENS*. Paragua.

154. *SETARIA RUFICAUDA*. Basilan.

155. *SETARIA SAMARENSIS*. *sp. nov.* Mindanao, Samar. Differs chiefly from *S. ruficauda* of Sharpe in having the cheeks brown and not olive and in having the under surface washed with fulvous brown, this forming a broad band across the breast.

156. *CULICICAPA PANAYENSIS*. Paragua, Negros.

157. *PRATINCOLA CAPRATA*. Panay, Negros, Luzon.

HIRUNDINIDÆ.

158. *HIRUNDO STRIOLATA*. Masbate, Luzon.

159. *HIRUNDO JAVANICA*. Paragua, Basilan, Negros, Samar, Mindoro.

160. *HIRUNDO GUTTURALIS*. Paragua, Mindanao, Guimaras, Panay, Luzon.

ORIOOLIDÆ.

161. *ORIOLOUS CHINENSIS*. Negros, Panay, Mindanao, Basilan, Guimaras, Siquijor, Leyte, Samar, Marinduque, Mindoro, Luzon.

162. *ORIOLOUS PALAWANENSIS*. Paragua.

163. *ORIOLOUS XANTHONOTUS*. Paragua.

164. *ORIOLOUS ASSIMILIS*. Masbate.

165. *ORIOLOUS STEERII*. Basilan.

166. *ORIOLOUS SAMARENSIS*. *sp. nov.* Samar. Yellower than *Steerii*. Central tail feathers unmarked. The gray of the wing coverts and primaries and secondaries replaced by yellow. Feathers of breast and flanks streaked as in *Steerii*, but washed with yellow. Under wing coverts light yellow.

PITTIDÆ.

167. *MELANOPITTA STEERII*. Mindanao, Samar.

168. *MELANOPITTA SORDIDUS*. Paragua, Mindanao, Basilan, Siquijor, Marinduque, Luzon.

169. *ERYTHROPITTA ERYTHROGASTRA*. Guimaras, Marinduque, Mindoro, Luzon.

170. *ERYTHROPITTA PROPINQUA*. Mindanao, Samar.

I have kept the specimens apart in deference to the authorities, but with a series of some thirty red-bellied pittas from the various islands before me I find the characters depended upon to separate the species variable, and I think all of them, perhaps excepting Kochi of Luzon, will have to be returned to the specific name *E. erythrogastra* of Temminck.

TIMELIIDÆ.

171. *DASYCROTOPHA SPECIOSA*. Negros.

172. *MACRONUS STRIATICEPS*. Basilan.

173. *MACRONUS MINDANENSIS*. *sp. nov.* Mindanao, Samar, Leyte. Head and nape brown streaked with whitish. Throat white washed with fulvous, this color becoming more pronounced on the breast and abdomen, taking the place of the olivaceous coloring of *M. striaticeps*.

174. *MIXORNIS WOODII*. Paragua.

175. *MIXORNIS CAPITALIS*. Basilan.

176. *MIXORNIS NIGROCAPITATUS*. *sp. nov.* Samar, Leyte. Head black tinged with dark rufous at the sides. Back dark ashy with very narrow lighter shaft lines. Chin and moustachial stripe dark rufous. Throat saffron yellow washed with rufous. Rest of under surface yellowish white.

177. *PTILOICICHLA FALCATA*. Paragua.

178. *PTIIOCICHLA* (?) *BASILANICA*. *sp. nov.* Sexes alike. Above olive brown becoming rufous on wings and rump. Feathers of head and nape broadly edged with black. Feathers of lower back very long, overlapping the rufous upper tail coverts, silky and with narrow whitish shaft stripes, and with concealed broad white tips beneath. White eye stripe reaching to nape. Chin and throat white with black moustachial stripe. Breast black tinged with rufous and with broad white shaft stripes, this coloring continuing on the belly and under tail coverts, but the rufous predominating. l. 6.00, wing 3.25, tail 2.30, tarsus .11, culmen .75.

179. *PTILOICICHLA* (?) *MINDANENSIS*. *sp. nov.* Above fulvous brown. Feathers of head narrowly edged with black. Feathers of back showing indistinct shaft stripes. Below much as in *P. Basilanica* which it equals in size also. It is readily separated by the fulvous brown of the head and the uniform fulvous of the back.

180. *DENDROBIASTES BASILANICA*. Basilan.

181. *TURDINUS RUFIFRONS*. Paragua.

PHYLLORNITHIDÆ.

182. *AEGITHINA VIRIDIS*. Paragua.

183. *CHLOROPSIS PALAWANENSIS*. Paragua.

IRENIDÆ.

184. *IRENA CYANOGAстра*. Luzon.

185. *IRENA MELANOCHLAMYS*. Basilan.

186. *IRENA TWEEDALII*. Paragua.

187. *IRENA ELLÆ*. *sp. nov.* Samar, Leyte. Adult male. Crown of head and nape deep cobalt blue as in *I. cyanogastra*. Sides of neck, back and scapulars velvety black. Lower back washed with cobalt, this becoming rich cobalt on upper tail coverts. Tail black washed with deep cobalt. Wings marked with cobalt much as in *cyanogastra*. Under surface deep velvety black. feathers of abdomen slightly washed with blue. Under tail coverts deep cobalt. Adult female.—Chin and throat velvety black. Breast, abdomen and flanks purplish blue. Size that of *cyanogastra*.

I. Ellæ can be readily distinguished from *I. cyanogastra*, its nearest ally, by its black black.

BRACHYPODIDÆ.

188. *POLIOLOPHUS UROSTICTUS*. Leyte, Luzon.

The bird described by Salvadori was probably from Luzon, and

as the southern form is distinct it should take another name. The birds from Luzon and Leyte are rufous brown washed with greenish and becoming decidedly rufous on the rump and upper tail coverts. The under parts show none of the yellow streaks of the southern form, and the flanks of the northern birds are olive brown. In the southern ones they are washed with olive green.

189. *POLIOLOPHUS BASILANICUS*. *sp. nov.* Mindanao, Basilan.

190. *MICROPUS MELANOCEPHALUS*. Paragua.

191. *PYCNONOTUS GOIAVIER*. Mindanao, Basilan, Guimaras, Negros, Cebu, Bojol, Leyte, Marinduque, Mindoro.

192. *PYCNONOTUS CINEREIFRONS*. Paragua.

193. *CRINIGER FRATER*. Paragua, Balabac.

194. *CRINIGER PALAWANENSIS*. Paragua.

195. *IOLE RUFIGULARIS*. Mindano, Luzon.

196. *IOLE PHILIPPINENSIS*. Cebu, Bojol, Leyte, Samar, Marinduque, Luzon.

197. *IOLE GUIMARASENSIS*. *sp. nov.* Negros, Panay, Guimaras. Size and general coloring of *rufigularis* with the light shaft streaks on the throat of *Philippinensis*. On crossing from Negros to Cebu I immediately noticed the greatly different note of the Cebu bird.

198. *IOLE EVERETTII*. Samar, Leyte.

199. *IOLE MINDORENSIS*. *sp. nov.* Above dark olive brown. Head dark brown slightly washed with ashy. Throat and breast brown, faintly rufous shaded, and with faint lighter shaft streaks. Rest of under surface light olive brown, with light shaft streaks, somewhat lighter on the belly. Length, 8.00; wing, 4.00; tail, 4.00; culmen, 1.10; Distinguished from *I. Philippinensis* by its long beak, faint rufous brown throat and olive brown under surface.

200. *IOLE SIQUIJORENSIS*. *sp. nov.* Head nearly black. Rest of upper surface dark olive brown, feathers narrowly edged with gray, lighter on the rump. Wings and tail like the back. Wing coverts and secondaries broadly tipped with whitish. Throat white, feathers narrowly edged with brown. Breast olive brown, with broad whitish shaft stripes. Belly whitish washed with yellow. Length, 9.75; wing, 5.25; tail, 5.00; culmen, 1.25. This black headed bulbul is apparently confined to the little island of Siquijor.

TURDIDÆ.

201. *MERULA OBSCURA*. Guimaras.

202. *MONTICOLA SOLITARIA*. Balabac, Mindanao, Basilan, Guimaras, Panay, Leyte, Luzon.

203. *GEOCICHLA INTERPRES*. Basilan.

204. *CITTOCINCLA NIGRA*. Paragua, Balabac.
 205. *CITTOCINCLA LUZONIENSIS*. Marinduque.
 206. *CITTOCINCLA CEBUENSIS*. *sp. nov.* Entirely black. Upper and under surface glossy purplish black. Wings and tail black edged with purplish black. Length, 8.50; wing, 3.75; tail, 4.50; culmen, 75.
 207. *COPSYCHUS MINDANENSIS*. Mindanao, Basilan, Guimaras, Negros, Samar.

SYLVIIDÆ.

208. *MEGALURUS PALUSTRIS*. Samar, Marinduque, Mindoro, Luzon.
 209. *MEGALURUS RUFICEPS*. Guimaras, Panay, Negros, Cebu, Bojol, Marinduque.
 210. *ACROCEPHALUS ORIENTALIS*. Mindanao, Oct. 25; Cebu, Jan. 22.
 211. *LOCUSTELLA FASCIOLATA*. Marinduque, May 16.
 212. *LUCUSTELLA OCHOTENSIS*. Marinduque, May 12.
 213. *PHYLLOSCOPUS LUGUBRIS*. Basilan, Nov. 14; Samar, April 4.
 214. *PHYLLOSCOPUS BOREALIS*. Paragua, Sept. 22; Mindanao, Oct. 5; Guimaras, Dec. 30; Panay, Jan. 14; Masbate, May 2; Marinduque, May 14.
 215. *ORTHOTOMUS FRONTALIS*. Mindanao, Basilan, Samar, Leyte.
 216. *ORTHOTOMUS CINEREICEPS*. Mindanao, Basilan.
 217. *ORTHOTOMUS CASTANEICEPS*. Guimaras, Negros.
 218. *ORTHOTOMUS PANAYENSIS*. *sp. nov.* The chestnut headed tailor bird from Panay, must, I think, be separated from that in the other central islands. It is smaller, and the slaty gray is confined to a brief space on the mantle. The interscapular region as well as the rest of the back is green.
 219. *ORTHOTOMUS RUFICEPS*. Paragua.
 220. *ORTHOTOMUS SAMARENSIS*. *sp. nov.* Samar. Adult male. Head black. Collar yellow. Rest of upper surface dark olive green. Chin and jaw white. Throat black. Rest of under surface bright yellow. Tail chestnut, outer pair of tail feathers with outer web yellow. Length, 4.60; wing, 2.90; tail, 1.80.
 221. *CISTICOLA CISTICOLA*. Luzon.
 222. *CISTICOLA EXILIS*. Luzon.

MOTACILLIDÆ.

223. *MOTACILLA MELANOPE*. Paragua, Sept.; Mindanao, Oct.; Basilan, Nov.; Guimaras, Dec.; Panay, Jan.; Negros, Feb.; Samar, April.

224. *MOTACILLA FLAVA*. Paragua, Sept.

225. *ANTHUS RUFULUS*. Guimaras, Panay, Negros, Siquijor, Bojol, Samar, Leyte, Mindoro.

226. *ANTHUS GUSTAVI*. Basilan, Guimaras, Leyte.

227. *ANTHUS CERVINUS*. Mindanao, Oct.; Basilan, Nov.

PARIDÆ.

228. *PARUS ELEGANS*. Guimaras, Panay, Negros, Masbate, Luzon.

229. *PARUS AMABILIS*. Paragua.

CERTHIIDÆ.

230. *SITTA FRONTALIS*. Balabac, Paragua.

231. *SITTA ŒNOCHLAMYS*. Basilan, Panay.

232. *CLIMACTERIS MYSTACALIS*. Panay, Leyte, Luzon.

MELIPHAGIDÆ.

233. *ZOSTEROPS EVERETTII*. Cebu.

234. *ZOSTEROPS NIGRORUM*. Negros, Panay.

235. *ZOSTEROPS MEYENI*. Luzon.

236. *ZOSTEROPS BASILANICA*. *sp. nov.* Basilan, Samar, Leyte. Above dark olive green, but little lighter on head and rump. Wings and tail blackish, edged with olive green. Lores dusky, space above them not distinctly yellow. Chin, throat and a broad stripe along the breast and abdomen sulphur yellow. Sides of breast and flanks clear ashy gray. Differs from *Z. Everetti* in wanting the light yellow spot above the lores and in the broad and deeper yellow stripe along the under surface.

237. *PHILEMON PHILIPPINENSIS*. *sp. nov.* Samar. Adult female. Above olive green. Wings brown edged with olive yellow. Under surface ashy olive, washed with olive green. Forehead, space about gape, in front of eye, and ear coverts bare. l. 6.60, wing 3.2, tail 1.80, cul. 1.55.

DICÆIDÆ.

238. *DICÆUM RETROCINCTUM*. Mindoro.

239. *DICÆUM HEMATOSTICTUM*. Guimaras, Panay, Negros.

240. *DICÆUM RUBRIVENTER*. Mindanao, Basilan, Cebu, Marinduque.
241. *DECEUM HYPOLEUCUM*. Basilan.
242. *DICÆUM DORSALE*. Panay, Negros, Masbate.
243. *DICÆUM XANTHOPYGIUM*. Mindoro.
244. *DICÆUM CINEREIGULARE*. Samar, Leyte.
245. *DICÆUM BESTI*. *sp. nov.* Siquijor. Differs from *cine-reigulare* in having the entire throat ashy gray and not yellow. Rump distinctly yellow.
246. *DICÆUM PYGMÆUM*. Paragua, Negros, Marinduque, Mindoro, Luzon.
247. *DICÆUM EVERETTI* (?). Samar.
248. *PRIONOCHILUS JOHANNÆ*. Paragua.
249. *PRIONOCHILUS OLIVACEUS*. Basilan.
250. *PRIONOCHILUS SAMARENSIS*. *sp. nov.* Samar, Leyte. Similar to *P. olivaceus*. Differs from it in having the breast and sides of the throat ash brown, nearly snuff brown, instead of ashy olive.

NECTARINIIDÆ.

251. *CHALCOSTETHA INSIGNIS*. Paragua.
252. *AETHOPYGA MAGNIFICA*. Negros.
253. *AETHOPYGA SHELLEYI*. Paragua.
254. *AETHOPYGA PULCHERRIMA*. Samar, Leyte.
255. *ARACHNOTHERA DILUTIOR*. Paragua.
256. *ARACHNOTHERA FLAMMIFERA*. Basilan, Samar, Leyte.
257. *CINNYRIS SPERATA*. Paragua, Guimaras, Negros, Samar, Leyte, Masbate, Marinduque, Mindoro.
258. *CINNYRIS JULIÆ*. Basilan.
259. *CINNYRIS AURORA*. Paragua.
260. *CINNYRIS JUGULARIS*. Mindanao, Basilan, Guimaras, Panay, Siquijor, Luzon, Negros, Cebu, Samar, Leyte, Marinduque, Mindoro.
261. *CINNYRIS GUIMARASENSIS*. *sp. nov.* Guimaras. Adult male. Forehead and crown metallic green with violet reflections. Hind head, neck and upper part of mantle dark blood red. Back olive yellow. Chin violet. Cheeks, sides of neck and throat velvety black. Breast rich orange separated from the black of the throat by a sulphur yellow band. A central stripe on the throat, partly concealed, of rich vermillion. Flanks and abdomen pale yellow. l. 3.50, wing 1.90.
262. *ANTHOTHREPTES MALACCENSIS*. Paragua, Mindanao, Basilan.

263. *ANTHOTHREPTES CHLOROGASTER*. Negros, Masbate.

CORVIDÆ.

264. *CORONE PHILIPPINA*. Mindanao, Basilan, Guimaras, Panay, Negros, Siquijor, Samar, Marinduque, Mindoro.

265. *CORVUS PUSILLUS*. Paragua, Mindoro.

266. *CORVUS SAMARENSIS*. *sp. nov.* Adult male. Black all over, with purple gloss. Little duller on the under parts. l. 13.25, wing 9.00, tail 5.25, tarsus 1.50, culmen 1.80, depth at base .87. Beak greatly curved. This little mountain crow of Samar is readily separated from *C. pusillus* of the island of Paragua by its immense curved beak.

STURNIDÆ.

267. *ACRIDOTHERES CRISTATELLUS*. Luzon.

268. *CALORNIS PANAYENSIS*. Paragua, Mindanao, Basilan, Guimaras, Negros, Siquijor, Cebu, Marinduque, Mindoro, Luzon.

269. *SARCOPS CALVUS*. Mindanao, Basilan, Guimaras, Panay, Negros, Siquijor, Cebu, Samar, Leyte, Masbate, Marinduque, Mindoro, Luzon.

270. *GRACULA JAVENENSIS*. Paragua.

EURYLÆMIDÆ.

271. *SARCOPHANOPS STEERII*. Mindoro, Basilan.

272. *SARCOPHANOPS SAMARENSIS*. *sp. nov.* Samar. Differs chiefly from *S. Steerii* in having the back mottled lilac and brown instead of dark ashy, this in both sexes. A lilac wing bar takes the place of the golden yellow one of *S. Steerii*. The male is lilac below and the female white as in the former species.

PLOCEIDÆ.

273. *PADDA ORIZIVORA*. Guimaras, Luzon.

274. *OXYCERCA JAGORI*. Luzon.

275. *OXYCERCA EVERETTI*. Basilan, Guimaras, Panay.

276. *OXYCERCA LEUCOGASTRA*. Paragua.

277. *MUNIA JAGORI*. Mindoro. Luzon.

278. *MUNIA ATRICAPILLA*. Mindanao, Guimaras, Panay, Negros, Bojol, Cebu, Samar, Leyte.

ALAUDIDÆ.

279. *MIRAFRA PHILIPPINENSIS*. Luzon.

FRINGILLIDÆ.

280. *PASSER MONTICOLA*. Luzon.

COLUMBÆ.

TRERONIDÆ.

281. *OSMOTRERON AXILLARIS*. Mindanao, Basilan, Guimaras Panay.
282. *OSMOTRERON VERNANS*. Paragua, Mindanao, Guimaras, Panay, Siquijor, Luzon.
283. *TRERON NASICA*. Paragua, Mindoro.
284. *PTILOPUS LECLANCHERI*. Negros, Luzon.
285. *PTILOPUS OCCIPITALIS*. Mindanao, Basilan, Leyte, Luzon.
286. *PTILOPUS MELANOCEPHALUS*. Mindanao, Basilan.
287. *PHABOTRERON AMETHYSTINA*. Samar, Leyte.
288. *PHABOTRERON NIGRORUM*. Guimaras, Panay, Negros, Cebu.
289. *PHABOTRERON LEUCOTIS*. Mindoro, Luzon.
290. *PHABOTRERON BREVIROSTRIS*. Mindanao, Basilan, Samar, Leyte, Bojol.
291. *CARPOPHAGA JENEA*. Paragua, Mindanao, Basilan, Guimaras, Negros, Siquijor, Masbate, Marinduque, Mindoro, Luzon.
292. *MYRISTICIVORA BICOLOR*. Guimaras, Negros, Siquijor, Marinduque.
293. *PTILOCOLPA GRISEIPECTUS*. Mindoro.
294. *HEMIPHAGA POLIOCEPHALA*. Mindanao, Basilan, Masbate.

COLUMBIDÆ.

295. *IANTHÆNAS GRISEOGULARIS*. Mindanao.
296. *MACROPYGIA TENUIROSTRIS*. Paragua, Marinduque, Luzon.
297. *MACROPYGIA EURYCERCA*. Mindanao, Basilan.
298. *TURTUR DUSSUMIERI*. Mindanao, Guimaras, Negros, Panay, Cebu, Siquijor, Bojol, Masbate, Marinduque, Mindoro, Luzon.
299. *TURTUR HUMILIS*. Mindoro, Luzon.

GOURIDÆ.

300. *PHLOGENAS LUZONICA*. Luzon.
301. *PHLOGENAS CRINIGERA*. Mindanao, Basilan.
302. *CHALCOPHAPS INDICA*. Paragua, Mindanao, Basilan, Guimaras, Negros, Cebu, Masbate, Marinduque.
303. *CALÆNAS NICOBARICA*. Mindoro.
304. *GEOPELIA STRIATA*. Luzon.

GALLINÆ.

PHASIANIDÆ.

305. *GALLUS BANKIVA*. Mindanao, Guimaras, Siquijor, Cebu, Samar, Marinduque, Mindoro.

MEGAPODIIDÆ.

306. *MEGAPODIUS DILLWINI*. Mindanao, Basilan, Masbate, Marinduque.

TETRAONIDÆ.

307. *EXCALFACTORIA CHINENSIS*. Negros.

TURNICIDÆ.

308. *TURNIX NIGRESCENS*. Paragua.

GRALLÆ.

CHARADRIIDÆ.

309. *CHARADRIUS FULVUS*. Paragua, Balabac, Mindanao, Negros, Siquijor.
310. *SQUATAROLA HELVETICA*. Siquijor.
311. *ÆGIALITES GEOFFROYI*. Paragua.
312. *ÆGIALITES DUBIUS*. Paragua, Mindanao, Guimaras.
313. *ÆGIALITES PERONII*. Mindanao, Siquijor, Negros.
314. *ÆGIALITES CANTIANUS*. Paragua, Bojol, Panay.
315. *HIMANTOPUS LEUCOCEPHALUS*. Mindanao.

GLAREOLIDÆ.

316. *GLAREOLA ORIENTALIS*. Luzon.

GALLINULIDÆ.

317. *PORPHYRIO PULVERULENTUS*. Luzon.
318. *GALLINULA CHLOROPUS*. Luzon.
319. *GALLICREX CINEREA*. Marinduque.
320. *ERYTHRA PHŒNICURA*. Mindanao, Siquijor, Marinduque.

RALLIDÆ.

321. *ORTYGOMETRA CINEREA*. Guimaras, Panay, Siquijor, Leyte, Marinduque.
322. *PORZANA FUSCA*. Mindanao, Luzon.

323. *PORZANA ERYTHROTHORAX*. Siquijor.
 324. *PORZANA PAYKULLI*. Basilan.
 325. *AMAURORNIS OLIVACEA*. Siquijor, Luzon.
 326. *HYPOTÆNIDIA TORQUATA*. Mindanao, Panay, Samar, Marinduque.
 327. *HYPOTÆNIDIA STRIATA*. Mindanao, Guimaras, Panay, Negros, Samar.

PARRIDÆ.

328. *HYDROPHASIANUS CHIRURGUS*. Mindoro.

SCOLOPACIDÆ.

329. *NUMENIUS PHEOPUS*. Panay, Negros, Cebu, Siquijor.
 330. *NUMENIUS LINEATUS*. Negros.
 331. *NUMENIUS MAJOR*. Negros.
 332. *RHYACOPHILUS GLAREOLA*. Paragua, Mindanao, Guimaras, Panay, Negros.
 333. *TRINGOIDES HYPOLEUCUS*. Paragua, Basilan, Guimaras, Panay, Negros.
 334. *TOTANUS CALIDRIS*. Negros, Siquijor.
 335. *TOTANUS GLOTTIS*. Negros.
 336. *TOTANUS INCANUS*. Mindanao, Negros, Siquijor.
 337. *LIMICOLA PLATYRHYNCHA*. Negros.
 338. *TRINGA TEMMINCKII*. Negros.
 339. *TRINGA MINUTA*. Paragua.
 340. *TEREKIA CINEREA*. Negros.
 341. *STREPSILAS INTERPRES*. Mindanao, Negros.
 342. *LIMOSA LAPPONICA*. Negros.
 343. *GALLINAGO MEGALA*. Mindanao, Basilan.
 344. *RHYNCHLEA CAPENSIS*. Mindanao, Samar, Marinduque.

ARDEIDÆ.

345. *ARDEA PURPUREA*. Panay, Negros, Leyte, Marinduque.
 346. *ARDEA CINEREA*. Guimaras.
 347. *ARDEA GARZETTA*. Mindanao, Negros.
 348. *ARDEA INTERMEDIA*. Bojol, Samar.
 349. *ARDEA JUGULARIS*. Balabac, Cebu, Bojol, Marinduque.
 350. *BUBULCUS COROMANDUS*. Paragua, Balabac, Mindanao, Guimaras, Panay, Negros, Cebu.
 351. *BUTORIDES JAVANICA*. Mindanao, Guimaras, Panay, Cebu, Samar, Marinduque.
 352. *ARDETTA FLAVICOLLIS*. Mindanao, Marinduque.

353. *ARDETTA CINNAMOMEA*. Mindanao, Guimaras, Panay, Marinduque, Mindoro.

354. *NYCTICORAX MANILLENSIS*. Mindanao, Siquijor, Marinduque.

355. *NYCTICORAX GRISEUS*. Luzon.

356. *GORSACHIUS MELANOLOPHUS*, Mindanao, Guimaras.

CICONIIDÆ.

357. *MELANOPELARGUS EPISCOPUS*. Mindanao, Bojol.

ANSERES.

ANATIDÆ.

358. *ANAS LUZONICA*. Guimaras, Marinduque, Siquijor.

359. *ANAS FULIGULA*. Basilan.

360. *DAFILA ACUTA*. Luzon.

361. *QUERQUEDULA CIRCIA*. Luzon.

362. *DENDROCYGNA VAGANS*. Basilan, Guimaras, Siquijor, Luzon.

PELICANIDÆ.

363. *SULA PISCATRIX*. Mindanao.

364. *PLOTUS MELANOGASTER*. Mindoro.

LARIDÆ.

365. *STERNA BERGII*. Mindanao.

366. *STERNA MINUTA*. Mindanao.

PODICIPIDÆ.

367. *PODICEPS PHILIPPENSIS*. Guimaras, Luzon.

LIST OF MAMMALS COLLECTED BY THE STEERE EXPEDITION TO THE PHILIPPINES.

PRIMATES.

CYNOPITHECIDÆ.

1. *MACACUS PHILIPPINENSIS*. Paragua, Mindanao, Basilan
Negros, Samar, Leyte, Luzon.

LEMUROIDEA.

TARSIIDÆ.

2. *TARSIVS SPECTRUM*. Mindanao, Samar.

CHIROPTERA.

PTEROPIDÆ.

3. *PTEROPUS EDULIS*. Leyte, Panay, Negros.
4. *PTEROPUS JUBATUS*. Leyte, Panay.
5. *PTEROPUS HYPOMELANUS*. Guimaras, Panay, Leyte.

These three species of fruit bats were found roosting together in both Panay and Leyte, though each species seemed to occupy separate trees.

6. *CYNOHYCTERIS AMPLEXICAUDA*. Guimaras, Negros.

RHINOLOPHIDÆ.

7. *PHYLLORHINA DIADEMA*. Guimaras.

INSECTIVORA.

GALEOPITHECIDÆ.

8. *GALEOPITHECUS PHILIPPINENSIS*. Mindanao, Basilan, Bojol.

TUPAIIDÆ.

9. *TUPAIA*. *sp.* Paragua.

CARNIVORA.

VIVERRIDÆ.

10. *PARADOXURUS PHILIPPINENSIS*. Mindanao, Negros, Marinduque.
11. *MACROXUS PHILIPPINENSIS*. Mindanao.

UNGULATA.

SUIDÆ.

12. *SUS PHILIPPINENSIS*. Basilan, Mindoro.

TRAGULIDÆ.

13. *TRAGULUS*. *sp.* Balabac.

CERVIDÆ.

14. *CERVUS PHILIPPINUS*. Basilan.

BOVIDÆ.

15. *PROBUBALUS MINDORENSIS*. *sp. nov.* Mindoro. See brief description in "Nature," of August 16th, 1888.

The *tamarou*, seems to be limited to the island of Mindoro, where it is found inhabiting cane brakes and thick, low jungle near water. The adults are lead black with whitish markings upon the face, neck, legs and under surface. The hair is thin and short. A calf apparently of five or six months old is chestnut in color. A curious equality of size and proportions exists in all the adults killed, irrespective of sex. They average about eight feet from the end of nose to tip of tail. The tail is about eighteen inches long. The height of the adult at the shoulder and roots of tail is three feet six inches. The chief sexual differences noted were the thicker neck and horns of the bull, the bases of the horns being also nearer together than in the female.

MURIDÆ.

16. *PHLEOMYS CUMINGII*. Marinduque.

SCIURIDÆ.

17. *SCIURUS PHILIPPINENSIS*. Basilan.
18. *SCIURUS STEERII*. Paragua. A squirrel from Paragua, rufous gray above and rufous beneath, is identified with *S. Steerii* of Günther. The types were collected in Balabac.
19. *SCIURUS MINDANENSIS*. *sp. nov.* Mindanao. Size.—l. 14.50, body 7.50, tail to tips of hairs 7.00. Above dark gray. Hairs black

at their bases then buffy tipped with black. Darker along the middle of the back. Thighs and upper surface of fore and hind feet rufous gray. Nose and space about the eye rufous. Under surface of legs and body to the tail ashy. Tail nearly uniform with the back.

20. *SCIURUS SAMARENSIS*. *sp. nov.* Samar and Leyte. Size.—l. 16.00, tail 8.00, body 8.00. General color above and below as in *S. Mindanensis*. Differs from that species in being of larger size and in having the thighs and nose and space about the eye, uniform in color with the back, and the upper surface of feet dark gray.

HYSTRICIDÆ.

21. *HYSTRIX PUMILA* (?) Paragua.

EDENTATA.

MANIDIDÆ.

22. *PHOLIDOTUS DAHLMANNI* (?). Paragua.

A number of species of small bats and other small mammals from the Philippines remain to be identified.





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